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UNITED STATES DISTRICT COURT

DISTRICT OF OREGON

PORTLAND DIVISION

AMERICAN RIVERS, PACIFIC COAST
FEDERATION OF FISHERMEN'S ASSOCIATIONS,
INSTITUTE FOR FISHERIES RESOURCES,
SIERRA CLUB, IDAHO RIVERS UNITED,
NORTHWEST SPORTFISHING INDUSTRY
ASSOCIATION, NW ENERGY COALITION,
NATIONAL WILDLIFE FEDERATION,
COLUMBIA RIVERKEEPER, IDAHO
CONSERVATION LEAGUE, and FLY FISHERS
INTERNATIONAL,

Civ. No. 3:01-cv-00640-SI

NWF'S MOTION FOR A
PRELIMINARY INJUNCTION AND
MEMORANDUM IN SUPPORT

Oral Argument Requested

Plaintiffs,

and

STATE OF OREGON,

Intervenor-Plaintiff,

v.

NATIONAL MARINE FISHERIES SERVICE, U.S.
ARMY CORPS OF ENGINEERS, and U.S. BUREAU
OF RECLAMATION,

Defendants,

and

NORTHWEST IRRIGATION UTILITIES, PUBLIC
POWER COUNCIL, COLUMBIA-SNAKE RIVER
IRRIGATORS ASSOCIATION, WASHINGTON
STATE FARM BUREAU FEDERATION,
FRANKLIN COUNTY FARM BUREAU
FEDERATION, GRANT COUNTY FARM BUREAU
FEDERATION, NORTHWEST RIVER PARTNERS,
CONFEDERATED SALISH AND KOOTENAI
TRIBES, STATE OF MONTANA, INLAND PORTS
AND NAVIGATION GROUP, and KOOTENAI
TRIBE OF IDAHO,

Intervenor-Defendants.

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GLOSSARY OF ACRONYMS

2020 BiOp	Biological Opinion for the Continued Operation and Maintenance of the Federal Columbia River Power System, July 24, 2020
2020 ROD	Columbia River System Operations Environmental Impact Statement Record of Decision, September, 2020
BA	Biological Assessment
CSS	Comparative Survival Study
CRS	Columbia River System
CRSO FEIS	Columbia River System Operations Final Environmental Impact Statement
CRSO DEIS	Columbia River System Operations Draft Environmental Impact Statement
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
ICTRT	Interior Columbia Technical Recovery Team
MOP	Minimum Operating Pool
MPG	Major Population Group
NAA	No Action Alternative
NMFS	National Marine Fisheries Service
PA	Proposed Action
QET	Quasi-extinction threshold
RPA	Reasonable and Prudent Alternative
R/S	Recruits per spawner
SAR	Smolt-to-adult returns
SR	Snake River
TDG	Total dissolved gas

MOTION FOR A PRELIMINARY INJUNCTION FOR VIOLATIONS OF THE
ENDANGERED SPECIES ACT

Plaintiffs, National Wildlife Federation, *et al.* (“NWF”), respectfully move the Court for a preliminary injunction against the U.S. Army Corps of Engineers (“Corps”) to address violations of the Endangered Species Act (“ESA”), 16 U.S.C. § 1536(a)(2), arising from the Corps’ Joint Record of Decision for Columbia River System Operations (the “2020 ROD”), dated September, 2020, and the Corps’ reliance on the Biological Opinion for Continued Operation and Maintenance of the Federal Columbia River Power System, dated July 24, 2020 (the “2020 BiOp”).¹

Specifically, NWF joins a motion by the State of Oregon for a preliminary injunction to reduce irreparable harm to, and increase the survival of, ESA-listed salmon and steelhead in the Columbia and Snake Rivers by requiring the Corps to:

- (1) increase voluntary spring spill for 24 hours per day to the maximum level that meets but does not exceed state water quality standards at the federal hydroelectric dams on the lower Columbia and lower Snake Rivers, with the exception of spill at Little Goose Dam, The Dalles Dam, and Bonneville as more specifically described herein and by the State of Oregon, for the spring spill season, beginning in 2022;
- (2) restore voluntary summer spill at all eight of these projects to the levels set in prior BiOps for the entire summer spill season (i.e., through August 31st), beginning in 2022;

¹ This motion does not address all of the claims in NWF’s Eighth Supplemental Complaint for violations of the ESA or any of its claims for violations of the National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.* NWF does not waive any of these claims and will address them in its motion for summary judgment in accordance with the Court’s scheduling order.

- (3) provide continuous 24-hour voluntary spill from September 1 to the beginning of the following spring spill season at all eight projects through the operation of at least one spillway weir or other surface passage route, beginning in 2022;
- (4) operate the four lower Snake River projects at their minimum operating pool (“MOP”) elevations with a one-foot operating range from March 1 through August 31, beginning in 2022; and,
- (5) develop and submit to the Court by September 1, 2022, an implementation plan to operate the four lower Columbia River reservoirs (above McNary, John Day, The Dalles and Bonneville dams) at their MOP elevations with a one-foot operating range from March 1 through June 15, beginning in 2023.

These spill and drawdown measures would remain in place until further order of the Court.

NWF has conferred with counsel for Federal Defendants regarding this motion and Federal Defendants have indicated they will oppose the motion. NWF has informed counsel for intervenors and *amici* about this motion. NWF has not received responses from all parties and *amici* at the time of filing. Of those that have responded, those intervenors and *amici* aligned with Federal Defendants will also oppose the motion, and unaligned *amici* will set forth their position in accordance with the briefing schedule the Court has set.²

This motion is based on NWF’s memorandum set out below, the declarations, exhibits, and other papers submitted herewith, the State of Oregon’s motion for an injunction and supporting papers, papers filed by the Nez Perce Tribe, the pleadings previously filed herein, and such other evidence as the Court deems appropriate.

² The Confederated Tribes of the Colville Reservation takes no position on this motion.

MEMORANDUM IN SUPPORT OF MOTION FOR A PRELIMINARY INJUNCTION
INTRODUCTION

Many species of ESA-listed Snake and Columbia River salmon and steelhead face imminent extinction. For years these species have persisted at dangerously low abundance levels and faced a highly precarious status, due in large part to harm caused by the Corps' operation of the Columbia River System dams and reservoirs. *See NWF v. NMFS*, 184 F. Supp. 3d 861, 870–71, 890–91 (D. Or. 2016). In the five years since the Court's 2016 decision, the abundance of these species has declined even further, in some cases sharply. Going forward, climate change will continue to worsen conditions for these species. Analysis in the 2020 BiOp predicts that if the effects of climate change unfold as expected, and Columbia River System operations continue as planned in the 2020 ROD, many populations of ESA-listed Snake River salmon and steelhead will likely become extinct within the very near future. *See infra* at 13–15.

Nonetheless, the Corps has concluded in the 2020 ROD, in reliance on the 2020 BiOp, that the proposed ongoing operation of its Columbia River System dams and reservoirs will not jeopardize the continued existence of any species of salmon or steelhead listed for protection under the ESA. NWF seeks a preliminary injunction against the Corps for violations of the ESA because the “no-jeopardy” finding in the 2020 BiOp and 2020 ROD is illegal and arbitrary. NWF is likely to prevail on the merits of its claims because the 2020 BiOp: (1) relies on a comparative jeopardy analysis that does not account for the effects of ongoing or past actions rationally or legally; (2) employs an illegal jeopardy standard that fails to rationally assess risks to survival and recovery; (3) fails to rationally or legally account for the effects of advancing climate change; (4) fails to give the benefit of the doubt to the listed species; and (5) fails to explain rationally or legally its no-jeopardy conclusion using the best available scientific information.

The Court is familiar with each of these issues because it has ruled against the Corps on each of them in prior decisions. Since 2000, the National Marine Fisheries Service (“NMFS”) has issued, and the Corps has relied on, a series of biological opinions intended to comply with the ESA, each of which has been held unlawful by this Court. *See NWF v. NMFS*, 184 F. Supp. 3d at 877–882. The 2020 BiOp repeats many of the errors the Court has already held unlawful. For example, in its opinion rejecting the 2004 BiOp and accompanying ROD, the Court held that the 2004 BiOp employed an improper comparative jeopardy analysis, relied on an illegal jeopardy standard, failed to account for the effects of past actions, and failed to address risks to recovery. *NWF v. NMFS*, No. CV 01-640-RE, 2005 WL 1278878 at *9–13 (D. Or. May 26, 2005), *aff’d*, 524 F.3d 917 (9th Cir. 2008). In its opinion rejecting the 2008/2014 BiOp and accompanying ROD, the Court held that the 2008/2014 BiOp failed to properly consider risks to recovery, failed to give listed species the benefit of the doubt by relying on uncertain habitat benefits, and failed to rationally or legally address climate change. *NWF v. NMFS*, 184 F. Supp. 3d at 887–910, 914–924. Remarkably, despite repeated instruction from the Court, the 2020 BiOp misinterprets and misapplies the requirements of the ESA and its implementing regulations in the same ways the Court previously rejected. As the Court observed more than 15 years ago, “[s]uch a dysfunction of government is not a rational option.” *NWF v. NMFS*, No. CV 01-640-RE, 2005 WL 2488447 at *3 (D. Or. Oct. 7, 2005).

A preliminary injunction is urgently needed to reduce irreparable harm to ESA-listed salmon and steelhead from operation of the Corps’ eight lower Snake and lower Columbia River dams pursuant to the 2020 BiOp and 2020 ROD. The condition of the species affected by the operation of these dams, especially those that originate from the Snake River basin, has deteriorated further even since the Court last considered a motion for an injunction from NWF

and Oregon. 2020 BiOp at 111 (Snake River spring/summer Chinook); *id.* at 306, 440, 544 (other Snake River species); *see also* *NWF v. NMFS*, No. CV 01-640-SI, 2017 WL 1829588 at *5–7 (D. Or. Apr. 3, 2017), *aff'd in part*, 866 F.3d 803 (9th Cir. 2018) (granting in part NWF’s motion for an injunction and noting the dire condition of the species at that time). The preliminary relief NWF now seeks will reduce (but not eliminate) this ongoing and irreparable harm. Specifically, increased voluntary spill at the dams and the actions to lower reservoir elevations will, separately and in combination, reduce salmon and steelhead mortality and increase their survival over the levels that would occur under the dam operations the Corps proposes pursuant to the 2020 ROD and 2020 BiOp.

BACKGROUND

The Court is already familiar with the legal framework and long procedural history of the Corps’ and other agencies’ repeated failure to comply with the ESA. *See, e.g., NWF v. NMFS*, 184 F. Supp. 3d at 877–882; *see also* NWF’s Amended Eighth Supplemental Complaint at ¶¶ 75–77 (filed Jan. 20, 2021) (ECF 2311) (providing additional background information since the Court’s rejection of the 2014 BiOp).³

The 2020 BiOp is the latest attempt by the Corps and other Federal Defendants to comply with the ESA. The 2020 BiOp concludes that the Corps’ Proposed Action (or “PA”) for continued operation of the Columbia River System dams, reservoirs, and related measures over the next 15 years will not jeopardize any listed species of salmon or steelhead or adversely

³ After the Court’s opinion rejecting the 2008/2014 BiOp, parties to this case reached an interim 2019-2021 Spill Operation Agreement to avoid litigation until the completion of the Court-ordered remand process. *See* ECF 2298-1 (filed Dec. 18, 2018). On the basis of this Agreement, the parties notified the Court that they would not pursue further legal challenges for the term of the Agreement. NWF and others did not agree that dam operations under the Agreement – or the subsequently issued 2019 BiOp addressing those operations – were adequate to comply with the ESA. *Id.* at 1, 9.

modify their critical habitat. The Corps' 2020 ROD adopts the PA as the Selected Alternative, and relies on the 2020 BiOp to establish compliance with the ESA for this final action.⁴ NWF describes below the main components of the analysis in the 2020 BiOp that lead to this arbitrary and illegal no-jeopardy conclusion.

I. THE NEW (OLD) STRUCTURE OF THE 2020 BIOP JEOPARDY ANALYSIS

The 2020 BiOp describes the Proposed Action for consultation as “the continued operation and maintenance of the [Columbia River System (“CRS”)] dams; tributary and estuary habitat mitigation programs; conservation and safety net hatchery programs; predator management programs; and research, monitoring, and evaluation programs.” 2020 BiOp at 45; *see also id.* at 47 (agencies propose “to continue operating and maintaining the 14 Federal CRS projects to meet congressionally authorized purposes”).⁵ The 2020 BiOp explains that the full suite of operational and other measures in the Proposed Action (“PA”) are those described for the Preferred Alternative in the Columbia River System Operation Draft Environmental Impact Statement (the “CRSO DEIS”). *Id.* at 95; *see also* Action Agency Biological Assessment (“BA”) at 1–10.

The Corps' Proposed Action continues past operations of the CRS with only modest changes. *See* 2020 BiOp at 46–91 (describing the Proposed Action). For example, the PA continues the “flexible spill” operations from the interim Flexible Spill Agreement. *Id.* at 54–56. Under this Agreement, the action agencies may balance periods of higher voluntary spill in the spring to aid fish passage with periods of lower spill to increase revenues from power generation.

⁴ The Selected Alternative is also the same as the Preferred Alternative from the Corps' Columbia River System Operations Final Environmental Impact Statement (“CRSO FEIS”).

⁵ In this motion, NWF refers to these dams as the “CRS dams” rather than the “FCRPS” to be consistent with the acronyms in the 2020 BiOp and 2020 ROD.

The PA makes some significant changes to these spill operations, however, for example by including an earlier termination of summer spill. *Id.* at 57–58. The PA also specifies these spill operations for only one year—2021. Thereafter, spill operations are subject to change through a loosely-defined adaptive management framework. *Id.* at 55–56. Other changes between the PA and past operations include, but are not limited to, increased reservoir elevations at some dams and authorization for some dam turbines to operate above a 1% efficiency range under certain circumstances. *Id.* at 58–59, 61–63. The shortened spill seasons, increased reservoir operating ranges, and changes in turbine operations, among other actions, are all expected to harm juvenile and/or adult salmon migration. *Infra* at 47–52.

A. The 2020 BiOp Compares the Effects of the Proposed Action to the Effects of Prior, Illegal Operations.

While the 2020 BiOp describes the Proposed Action as the “continued operation” of the CRS dams, 2020 BiOp at 45, the BiOp’s jeopardy analysis actually defines the effects of the Proposed Action far more narrowly. Instead of analyzing the full effects of the continued operation of the CRS as the effects of the Proposed Action, the 2020 BiOp compares the effects of the Proposed Action to the effects of prior CRS operations, and treats only the limited differences between the two as the effects of the Proposed Action. The BiOp assigns all other effects of past and ongoing CRS operations to the “environmental baseline.” Specifically, the 2020 BiOp uses the effects of operations under the Reasonable and Prudent Alternative (RPA) from the illegal 2014 BiOp, which is the “no-action” alternative in the CRSO DEIS, as the environmental baseline for purposes of its comparative analysis.⁶

⁶ The agencies refer to operations under the RPA from the 2014 BiOp, alternatively, as the “no-action alternative” from the CRSO DEIS, “2016 operations,” “recent conditions,” and “current conditions.”

The 2020 BiOp is explicit that this comparison between the PA and prior operations is the basis for identifying the effects of the PA in the jeopardy analysis. For example, the BiOp concludes that the Proposed Action will have little effect on river flows compared to prior operations. *See, e.g.*, 2020 BiOp at 194 (“Flow changes downstream of Grand Coulee will be within 2 percent of current conditions.”). The BiOp then concludes that the PA’s effect on river flows will not harm salmon, based on this comparison of the PA to prior operations. *See id.* (“The proposed change in flow would be too small to affect river temperature during the adult migration period The associated effects on SR spring/summer Chinook smolts or adults should not change from recent conditions by a meaningful amount”).

In contrast, the 2020 BiOp includes in the environmental baseline (but not the effects of the PA) the substantially altered and reduced river flows caused by ongoing CRS operations that have “significantly degraded salmon and steelhead habitats.” 2020 BiOp at 126. Likewise, the environmental baseline also incorporates the repeated failure to meet seasonal flow objectives, and the effects of that failure on juvenile salmon. *Id.* at 128 (“From 1998 to 2019, seasonal spring flow objectives were met or exceeded . . . during 48 percent of years at Lower Granite Dam.”); *id.* (“when seasonal flow objectives are not met, juvenile survival may be reduced”).

Because the environmental baseline forms one bookend for the 2020 BiOp’s comparative analysis, the BiOp does not consider as an effect of the Proposed Action the harm to salmon and steelhead caused by these dramatically altered river flows and consistent failures to meet seasonal flow objectives. For example, in the integration and synthesis discussion for Snake River spring/summer Chinook, the 2020 BiOp concludes that “[t]he proposed action—the future operation and maintenance of the CRS . . . will have little overall effect on the seasonal hydrograph or seasonal temperatures *compared to recent conditions.*” 2020 BiOp at 290

(emphasis added). *Compare id.* at 127 (graph showing the major difference between unregulated river flow and “current” CRS operations as part of the environmental baseline) *with id.* at 194 (graph showing the minor difference between the no action alternative and the PA as part of the effects of the action).

Similarly, the 2020 BiOp concludes that the spill operations in the PA will have a minimal effect on juvenile Snake River spring/summer Chinook by comparing the spill operations under the PA to prior operations. Specifically, the 2020 BiOp notes that “the flexible spring spill operation (Proposed Action), compared to the No Action Alternative” would slightly increase juvenile survival for Snake River spring/summer Chinook from 42.7 to 42.8 percent, reduce travel time, reduce the proportion of fish transported, and reduce overall smolt-to-adult returns from 0.88 to 0.81 percent. 2020 BiOp at 240–41. *See also id.* at 95 (explaining that the model used in the 2020 BiOp is an inherently comparative tool). Accordingly, the BiOp’s conclusion that the PA will cause in-river juvenile survival rates for this species to “increase slightly” is based on a comparison of spill operations under the PA to prior spill operations. *Id.* at 285; *see also id.* at 290.⁷

At the same time, the 2020 BiOp includes in the environmental baseline the significant mortality to juvenile and adult salmon from ongoing CRS operations (and other causes). *See* 2020 BiOp at 139–43 (including in the environmental baseline the average minimum survival estimates from Bonneville Dam to Lower Granite Dam from 2010 to 2019 for Snake River spring/summer Chinook for both returning adults and smolts). This mortality is substantial: only

⁷ The Corps’ Biological Assessment on which the 2020 BiOp is based also analyzes the effects of the PA by comparing the PA to prior operations. *See, e.g.,* BA at 3-192 & Table 3-24 (modeling shows smolt survival would increase under the PA, based on comparison between the “NAA [No Action Alternative] (2016 Operations)” and “[t]he preferred alternative” from the CRSO DEIS).

around 83 percent of adult Snake River spring/summer Chinook survive their upstream migration through eight CRS dams. *Id.* at 139. Juvenile mortality is far higher: while estimates vary, in recent years less than half of juvenile Snake River spring/summer Chinook have survived their downstream migration through eight CRS dams. *Id.* at 142–43.

The 2020 BiOp does not consider this substantial adult and juvenile mortality, caused in large part by ongoing CRS operations, as an effect of the PA. In discussing the effects of the PA, the BiOp predicts that adult survival rates for Snake River spring/summer Chinook will “continue to average” about 83 percent from Bonneville Dam to Lower Granite Dam. 2020 BiOp at 198. For smolts, the BiOp predicts that the survival of in-river migrating salmon will “increase slightly” from 42.7 to 42.8 percent. *Id.* at 241; *see also id.* at 201. Based on this comparative assessment, the BiOp ultimately concludes that the PA will likely “improve” dam passage survival for this species. *Id.* at 290.

In other words, the 2020 BiOp assigns to the environmental baseline all of the substantial mortality and other harm from the ongoing operation of the CRS, and only assigns to the Proposed Action any changes in these high mortality rates and other harmful effects relative to prior operations.⁸ The BiOp then evaluates only these minor changes to determine whether the PA will jeopardize listed species.

B. The 2020 BiOp Uses a “Not-Appreciably-Worse” Jeopardy Standard.

To reach a jeopardy determination for the limited effects it assigns to the Proposed

⁸ The 2020 BiOp is not always explicit about its exclusion of the effects of past and ongoing operations from the effects of the PA. For example, in the discussion of the effects of the PA on Snake River spring/summer Chinook, the BiOp notes that “[t]he effects of CRS operations will include continued reduced flows in the lower Snake and Columbia Rivers during the months of May through July.” 2020 BiOp at 193. But when it turns to assessing effects on salmon and steelhead, the BiOp repeatedly concludes that the *change* from prior conditions will be minimal, and so the effects of the PA on salmon will be negligible. *See, e.g., id.* at 194.

Action, the 2020 BiOp evaluates whether those effects will appreciably worsen the species' current condition. Specifically, the 2020 BiOp explains that so long as the changes between the PA and prior operations will not appreciably reduce the species' *current* reproduction, numbers, or distribution, the PA will not jeopardize either survival or recovery.

This standard is a marked departure from the 2008/2014 BiOp and the 2000 BiOp, which relied on various population growth metrics and trends in their jeopardy analyses to assess the effects of the CRS on the species' likelihood of survival and recovery. *See* 2020 BiOp at 44–45. Specifically, the 2008/2014 BiOp examined whether “populations were expected to replace themselves and grow over time.” *Id.* In contrast, the 2020 BiOp states that this analysis of population trends is not “required by the plain language of the ESA, or our implementing regulations.” *Id.* The 2019 BiOp (issued after the parties agreed not to pursue litigation during the 2014 BiOp remand period) is even more direct:

In applying the ESA and our implementing regulations, we reiterate our long-standing interpretation that *section 7(a)(2) does not require that a proposed action result in an improvement to species status, growth rates, or other metrics to demonstrate compliance with section 7(a)(2).* A standard requiring an improvement to species status, growth rates, or other metrics would be contrary to the plain language of section 7(a)(2), which only requires agencies to insure that their actions are not likely to jeopardize “the continued existence” of listed species. That standard also would be contrary to our 1986 regulations, which interpret section 7(a)(2) as being violated only where the action causes reductions to the species’ “reproduction, numbers, or distribution” to the degree of reducing appreciably the species’ likelihood of survival and recovery in the wild. In accord, neither the ESA nor our implementing regulations require that a proposed action or RPA result in populations or species being on a trend toward recovery, or otherwise result in improvements that would ensure survival of a species or improve the potential for recovery.

2019 BiOp at 26–27 (emphasis added). The 2020 BiOp cites and relies on this discussion of the ESA’s requirements from the 2019 BiOp. *See* 2020 BiOp at 45.

Relying on this new standard, the 2020 BiOp concludes that the limited effects it ascribes to the PA will not cause jeopardy because the PA will likely either modestly improve or at least

not appreciably reduce any listed species' *current* reproduction, numbers, or distribution when compared with prior dam operations. For example, the 2020 BiOp finds that in-river survival rates for juvenile Snake River spring/summer Chinook will "increase slightly" from 42.7 to 42.8 percent as a result of "increased spring spill levels with the flexible spill operation [under the PA] compared to the No Action Alternative." 2020 BiOp at 241; *id.* at 285 (citing the CRSO DEIS analysis). The BiOp does not discuss whether an in-river survival rate of 42.8 percent is likely to appreciably reduce the species' ability to actually survive and eventually recover.

Even where the 2020 BiOp recognizes that some aspects of the PA will likely adversely affect one or more listed species, it still concludes that the overall effects of the PA, as compared to prior operations, will either improve or not appreciably worsen the current condition of the species. For example, the BiOp acknowledges the harm to Snake River sockeye from two operational changes under the Proposed Action as compared to past operations: increased reservoir elevations above John Day Dam and modified turbine operations. *See, e.g.*, 2020 BiOp at 511–12. Nonetheless, the BiOp concludes that "[a]ltogether, recent (2008 to 2019) adult survival rates would be expected to continue at similar levels under the proposed action because the minor improvements and impairments [under the PA as compared to prior operations] should, on the whole, result in no substantial differences that would measurably affect survival rates." *Id.* at 512; *see also id.* at 201 (concluding that changes in turbine operations would not "measurably reduce[]" Snake River spring/summer Chinook adult survival rates "at the population, MPG, or ESU level"). Again, the 2020 BiOp does not discuss whether maintaining these survival rates is likely to appreciably reduce the species' ability to actually survive and eventually recover.

Relying on these and similar assessments that the PA will "improve" or at least maintain

recent conditions, the 2020 BiOp concludes in nearly identical language for each listed species that “the effects of the action will not cause reductions in reproduction, numbers, or distribution” of any listed species and so will not cause jeopardy. *See, e.g.*, 2020 BiOp at 291 (Snake River spring/summer Chinook); *id.* at 428 (Snake River steelhead); *id.* at 534 (Snake River sockeye); *id.* at 640 (Snake River fall Chinook).

C. The 2020 BiOp Does Not Evaluate Whether the Proposed Action With the Advancing Effects of Climate Change Will Cause Jeopardy to ESA-Listed Salmon and Steelhead.

The 2020 BiOp discusses the effects of the Proposed Action in combination with advancing climate change and concludes that these effects will be devastating for salmonids. The BiOp, however, does not address whether the PA will jeopardize listed species in a warming world. Instead, the 2020 BiOp concludes that these harmful effects are not caused by the PA and that the PA will help “mitigate” for the effects of climate change to some unspecified degree.

The majority of the 2020 BiOp’s analysis of the effects of the Proposed Action assumes a stable climate, not a warming one. *See, e.g.*, 2020 BiOp at 97 (life cycle models represent recent climate conditions, using data from the last 20 years). In a separate section for each species, the 2020 BiOp presents an analysis of the effects of the PA in combination with the effects of advancing climate change. For Snake River spring/summer Chinook, the 2020 BiOp includes a quantitative analysis of these effects. *See id.* at 242–79; *see also infra* at 32–37. For all other species/ESUs, the BiOp only includes a brief qualitative discussion of the effects of climate change. *See, e.g., id.* at 445–51 (Snake River sockeye); *id.* at 657–63, 743 (upper Columbia spring/summer Chinook).

The quantitative analysis for Snake River spring/summer Chinook that predicts the effects of the PA in a warming climate shows alarming declines in abundance of every population analyzed. *See* 2020 BiOp at 246–47, 256, 264–65. The 2020 BiOp acknowledges

that “[d]eclines of this magnitude . . . would threaten to extirpate a large number of small populations, and would substantially reduce the abundance and productivity of larger populations.” *Id.* at 275. The BiOp notes that “[t]he threat to larger populations (substantially reduced abundance and productivity) causes even greater concern because they are the remaining salmon strongholds, which provide genetic and demographic resilience for the ESU as a whole.” *Id.* at 276.

The 2020 BiOp’s conclusions on likely extinction risks are similarly alarming. For example, for the Middle Fork Salmon River Major Population Group of Snake River spring/summer Chinook, the 2020 BiOp predicts that the Proposed Action with climate change “substantially increase[s] the probability of falling below the [quasi-extinction] threshold for all six populations. The median probability increased to between 93 and 100 percent for the three smaller populations The median probabilities also increased substantially for the larger populations, ranging from 67 to 85 percent with the proposed action scenario, and from 50 to 72 percent [using alternative assumptions].” 2020 BiOp at 257. This means that in a warming world, it ranges from likely to virtually certain that implementing the PA will lead to every population of the Middle Fork Salmon River Major Population Group falling below the Quasi-Extinction Threshold within the next 24 years. *Id.*

The 2020 BiOp concludes that climate change “poses a substantial threat to [Snake River] spring/summer Chinook salmon.” *Id.* at 279. It finds, however, that the low abundances and high extinction risks shown by modeling the Proposed Action in a warming world “are not caused by, nor will they be exacerbated by, the continued operation and maintenance of the CRS.” *Id.* Instead, the 2020 BiOp asserts that implementation of the “proposed non-operational conservation measures (tributary habitat and estuary habitat restoration, and predator

management) should . . . contribute to resilience in the freshwater life history stages.” *Id.*; *see also id.* at 291 (“The proposed action is expected to reduce both the scope and severity of those impacts [of climate change] and not exacerbate them.”).

In short, the 2020 BiOp predicts that the Proposed Action in combination with climate change will cause at least a severe depletion of every population of Snake River spring/summer Chinook analyzed. However, the BiOp never actually determines whether the effects of the PA with climate change will avoid jeopardy because the BiOp attributes these devastating effects to climate change alone. Instead, the BiOp answers a different question—whether the PA will “mitigate” the impacts of climate change on the listed species to some unspecified extent as compared to prior CRS operations.

D. The 2020 BiOp Relies on Benefits From Unspecified and Uncertain Habitat Improvement Actions.

The 2020 BiOp includes in the Proposed Action continuing tributary and estuary habitat mitigation programs to improve habitat for salmonids. *See* 2020 BiOp at 74–77. The BiOp does not list the specific habitat actions that will be included in these programs, however. Instead, the BiOp notes that the Corps (and other action agencies) “will develop, with input from NMFS, a series of prospective 5-year implementation plans that outline the specific actions the Action Agencies intend to implement in that timeframe.” *Id.* at 76.

The 2020 BiOp relies in part on the projected benefits from these unspecified habitat improvement actions to support its conclusion that the PA will not jeopardize any listed species of salmon or steelhead. *See, e.g.,* 2020 BiOp at 286 (concluding that “[i]mplementation of the tributary habitat actions analyzed in this opinion, if implemented as described in the proposed action, will provide additional near-term and long-term benefits to the targeted populations by improving tributary habitat in the manner and timeframes outlined [above]”); *id.* at 210–12

(Table 2.2-18, describing generally the benefits of tributary habitat improvement actions); *see also, e.g., id.* at 424 (noting unspecified “additional benefits” for Snake River steelhead from continuation of tributary habitat actions under the PA).

The BiOp’s quantitative analyses also incorporate the projected effects of these future, unspecified habitat improvement actions. *See, e.g.,* 2020 BiOp at 224 (“Many of these Snake River spring/summer Chinook salmon populations have been targeted for habitat restoration actions Estimated effects of habitat improvements were incorporated into the model at years 5, 10, and 15. This reflects a reasonable assumption about the implementation timing of the proposed action.”); *see also id.* at 226, 286.

These predicted benefits are not based on specific habitat actions, because those actions will be identified in plans that have not yet been developed. *Id.* at 76. Instead, these predicted benefits are based on general habitat goals. *See, e.g.,* BA at 2–98 (Table 2-19 identifying broad habitat metrics for Snake River spring/summer Chinook); *id.* at App. D (similar tables and additional narrative but no specific projects); *see also* 2020 BiOp at 75 (incorporating this analysis). On the basis of these broad goals and not-yet-developed implementation plans, the BiOp concludes that the PA “is likely to improve . . . degraded tributary and estuary habitat.” *Id.* at 290; *see also id.* at 291 (concluding that “improvement actions” will increase “ecosystem functions” in tributary and estuary habitats).

E. The 2020 BiOp Fails to Explain How Its Quantitative or Qualitative Analyses Support Its No Jeopardy Conclusion.

The 2020 BiOp ultimately concludes that the PA will not jeopardize any listed species of salmon or steelhead. The BiOp provides a quantitative analysis of the effects of the PA for some species before reaching this conclusion. Specifically, for Snake River spring/summer Chinook, the 2020 BiOp includes a quantitative analysis of the effects of the PA using NOAA’s

COMPASS and lifecycle (LCM) models. *See* 2020 BiOp at 95–97. The BiOp also includes a limited quantitative analysis for some other species, *e.g. id.* at 398–99 (Snake River steelhead); *id.* at 741–44 (Upper Columbia River spring Chinook), but not others, *e.g. id.* at 514 (Snake River sockeye).

The BiOp’s quantitative analysis for Snake River spring/summer Chinook uses two metrics to predict the effects of the PA on this species. First, it predicts average population abundance over 24 years. 2020 BiOp at 223. Second, it predicts the risk a population will fall below a quasi-extinction threshold (“QET”) of 50 fish per year for four consecutive years during the next 24 years. *Id.* The BiOp notes that once a population drops below this QET threshold, it becomes increasingly unlikely that adult fish will be able to find spawning partners, and increasingly likely that other factors could fully extirpate the population. *Id.*

The 2020 BiOp presents the predicted effects of the PA on abundance and QET risk for each population of Snake River spring/summer Chinook, assuming a stable climate. *Id.* at 223–42.⁹ The BiOp notes that in most cases the models predict that the PA will cause some improvement in population abundance as compared to current abundance (under stable climate conditions). *See, e.g., id.* at 240. The BiOp also reports a wide range of QET risk over 24 years, ranging from a 0% risk for some larger populations (when including both natural and hatchery spawners), *id.* at 237, up to a 94% risk for smaller populations (including only natural spawners), *id.* at 229, again assuming a stable climate.

The 2020 BiOp also presents model results that incorporate a warming climate.

⁹ In some instances the 2020 BiOp models the QET and abundance parameters for populations twice, first for hatchery and natural origin spawners combined, and then for only the natural origin spawners. *E.g.* 2020 BiOp at 227–29 (Grande Ronde River MPG). Only naturally spawned Snake River spring/summer Chinook and steelhead are protected under the ESA. *See id.* at 99 (spring/summer Chinook), 295 (steelhead).

Specifically, the BiOp presents the effects of the PA on abundance and QET risk for each population of Snake River spring/summer Chinook assuming a warming climate. 2020 BiOp at 242–79. This analysis shows dramatic declines in abundance and dramatic increases in QET risk for every population analyzed. *Id.*; *see also supra* at 13–15.

For each population, under stable and warming climate conditions, the 2020 BiOp also includes as an “alternative” set of abundance and QET risk model results which incorporate an across-the-board 35% productivity increase. *E.g., id.* at 233. The BiOp states that this 35% productivity increase is “hypothesized” and so not certain to occur. *See id.* at 224, 241.¹⁰

While the 2020 BiOp reports the abundance levels predicted by its models under a variety of scenarios, it does not state what level of abundance would be so low that it would constitute an appreciable reduction in the species’ likelihood of survival and recovery. Similarly, the BiOp reports QET risk under a variety of scenarios, but it does not state what level of QET risk would be too high and lead to a jeopardy finding. Nor does the BiOp rely on any external benchmarks (such as population performance standards or minimum viable abundance numbers, *see infra* at 40–44) against which to judge the abundance and QET risk it predicts for the PA. And it does not otherwise explicitly connect these quantitative estimates of abundance and QET risk to the species’ likelihood of survival and eventual recovery.¹¹

The 2020 BiOp ultimately does not explain how the various qualitative and quantitative

¹⁰ The 2020 BiOp claims that this 35% productivity increase is a way to account for reductions in latent mortality consistent with the “hypothesis” of the Fish Passage Center’s Comparative Survival Study (“CSS”) that smolts that pass over the dams instead of through the turbines or bypass systems experience reduced latent mortality in the ocean. *See* 2020 BiOp at 241.

¹¹ The 2020 BiOp also provides qualitative analyses of factors such as estuary habitat actions and avian predation that prior BiOps have assessed quantitatively. *Compare* 2020 BiOp at 206–08; *id.* at 218–20 *with NWF v. NMFS*, 184 F. Supp. 3d at 903–904 (discussing estuary habitat analysis); *id.* at 926–927 (discussing analysis of avian predation).

factors it considers are weighted or combined to support a no-jeopardy finding. Instead, in its concluding “Integration and Synthesis” discussion, the 2020 BiOp describes in broad terms some of the ways in which the PA will affect salmon, in comparison to prior dam operations. 2020 BiOp at 283–91 (Snake River spring/summer Chinook). It notes that “the proposed action includes some elements that will harm salmonids and some that will benefit salmonids.” *Id.* at 290. The BiOp also notes that the Proposed Action combined with current and future climate change poses a profound threat to the listed species. *Id.* at 291. It then concludes that the Proposed Action will not jeopardize any of the listed species of salmon and steelhead. *Id.* at 290–91 (no-jeopardy finding for Snake River spring/summer Chinook); *see also, e.g., id.* at 528–34 (Snake River sockeye); *id.* at 748–55 (Upper Columbia River spring Chinook).

* * *

In sum, the 2020 BiOp concludes that the operation of the CRS will not jeopardize any listed species of salmon or steelhead. 2020 BiOp Cover Letter. This conclusion is founded on a comparative analysis that assigns the harm from past and ongoing CRS operations to the environmental baseline, a not-appreciably-worse jeopardy standard, a dismissal of climate impacts, assumed benefits from unspecified habitat actions, and a quantitative and qualitative analysis that is neither explained nor connected to the future prospects of the species.

II. THE CORPS’ 2020 ROD IS BASED ON THE FLAWED 2020 BIOP

The Corps owns and operates the eight dams and reservoirs on the lower Snake and lower Columbia Rivers. In the 2020 ROD, the Corps adopts the “Selected Alternative” as its plan for CRS operations and associated actions, which is the same as the Proposed Action described in the 2020 BiOp (and the Preferred Alternative in the CRSO FEIS). 2020 ROD at 2. As it has done in the past, the Corps relies on the 2020 BiOp to establish its compliance with the ESA without any separate, independent, or different analysis. *See, e.g., id.* at 44–45, 54; *cf. NWF v.*

NMFS, 2017 WL 1829588 at *5 (concluding that the Corps violated the ESA by relying on the 2014 BiOp without conducting any independent analysis of whether its actions complied with the ESA), *aff'd* 866 F.3d 803 (9th Cir. 2018).

STANDARD OF REVIEW

The Ninth Circuit recognizes two standards for granting preliminary injunctive relief. Under the first, plaintiffs must establish that: (1) they are likely to succeed on the merits; (2) they are likely to suffer irreparable harm in the absence of preliminary relief; (3) the balance of equities tips in their favor; and (4) that an injunction is in the public interest. *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 20 (2008); *Cal. Trucking Ass’n v. Bonta*, 996 F.3d 644, 652 (9th Cir. 2021). Second, the Circuit also recognizes a “sliding scale” standard for preliminary relief where “a stronger showing of one element may offset a weaker showing of another.” *Hernandez v. Sessions*, 872 F.3d 976, 990 (9th Cir. 2017) (quoting *Pimental v. Dreyfus*, 670 F.3d 1096, 1105 (9th Cir. 2012) (per curiam)); *All. for the Wild Rockies v. Cottrell*, 632 F.3d 1127, 1134 (9th Cir. 2011) (holding that the sliding scale test remains viable post *Winter*). “[W]here there are only ‘serious questions going to the merits’—that is, less than a ‘likelihood of success’ on the merits—a preliminary injunction may still issue so long as ‘the balance of hardships tips sharply in the plaintiff’s favor’ and the other two factors are satisfied.” *Ramos v. Wolf*, 975 F.3d 872, 888 (9th Cir. 2020) (quoting *Short v. Brown*, 893 F.3d 671, 675 (9th Cir. 2018)).

In ESA cases, these standards are modified. Specifically, the equitable balancing of hardships and the public interest factors always favor an injunction to protect the listed species because the “plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, whatever the cost,” and thus “the balance has been struck in favor of affording endangered species the highest of priorities” *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 184, 194 (1978); *see also NWF v. NMFS*, 2017 WL 1829588 at *3 (explaining ESA

injunction standard); *NWF v. NMFS*, 839 F. Supp. 2d 1117, 1130–31 (D. Or. 2011) (“In Congress’s view, projects that jeopardize[] the continued existence of endangered species threaten incalculable harm: accordingly, it decided that the balance of hardships and the public interest tip heavily in favor of endangered species.”) (quoting *Sierra Club v. Marsh*, 816 F.2d 1376 (9th Cir. 1987)).

For the reasons described below, NWF is likely to succeed on the merits of its claims against the Corps, and the relief NWF and Oregon seek will reduce the irreparable harm to listed salmon and steelhead that would otherwise occur under the illegal 2020 BiOp and 2020 ROD. This relief also is narrowly tailored to address this harm. *League of Wilderness Defs./Blue Mountains Biodiversity Project v. Connaughton*, 752 F.3d 755, 767 (9th Cir. 2014) (“[i]njunctive relief must be tailored to remedy the specific harm alleged’ . . .”) (quoting *Natural Res. Def. Council, Inc. v. Winter*, 508 F.3d 885, 886 (9th Cir. 2007)).¹²

ARGUMENT

I. NWF IS LIKELY TO SUCCEED ON THE MERITS OF ITS CLAIMS AGAINST THE CORPS FOR VIOLATIONS OF THE ESA.

NWF is likely to succeed on the merits of its ESA claims against the Corps because the 2020 BiOp is built on an analysis and structure the Court has already rejected as inconsistent with the ESA and its implementing regulations—in many cases more than once—and the 2020 ROD relies on the 2020 BiOp to establish compliance with the ESA.

First, the 2020 BiOp’s jeopardy analysis improperly focuses on the effects of the Proposed Action isolated from and compared to the effects of past dam operations. The Court

¹² NWF continues to have standing to pursue its claims against the Corps based on injury to its members’ interests in Columbia Basin salmon and steelhead. See Supplemental Declaration of Joseph Bogaard and Supplemental Declaration of Liz Hamilton (filed concurrently).

has previously rejected as contrary to the ESA this kind of “isolate-and-compare” jeopardy analysis. *See NWF v. NMFS*, 2005 WL 1278878 at *9–13 (“Courts have rejected NOAA’s comparative approach in jeopardy analyses.”) (citations omitted). The BiOp relies on a revised regulatory definition of the “environmental baseline” to support this comparative analysis, but nothing in this new definition insulates the Corps’ discretionary operation of the CRS from the ESA’s consultation requirement. The result of this illegal comparative approach is to exclude from the Proposed Action the effects of more than two decades of illegal action under prior proposed actions and RPAs. This attempt at legal alchemy—transforming the illegal into the legal—in the face of a series of adverse Court decisions should be rejected.

Second, the 2020 BiOp employs a jeopardy standard that only considers whether the Proposed Action will appreciably reduce the species’ *current* reproduction, numbers or distribution. Courts have uniformly rejected this “not-appreciably-worse” jeopardy standard. *See NWF v. NMFS*, 524 F.3d 917, 930 (9th Cir. 2008) (“Under this approach, a listed species could be gradually destroyed, so long as each step on the path to destruction is sufficiently modest. This type of slow slide into oblivion is one of the very ills the ESA seeks to prevent.”). Relying on this illegal standard, the BiOp fails to rationally analyze the PA’s effect on the listed species’ likelihood of survival and eventual recovery, as the ESA requires. *See* 50 C.F.R. § 402.02.

Third, the 2020 BiOp does not determine whether the Proposed Action will avoid jeopardy in a future that includes climate change—in other words, the real world. The BiOp candidly reports that the Proposed Action together with climate change will lead to at least the severe depletion of every population of listed salmon it analyzes. Instead of concluding that the PA will cause jeopardy in a warming world, however, the BiOp repeats a familiar error by

asserting instead that the measures in the Proposed Action will mitigate the effects of climate change to some unspecified extent. *See NWF v. NMFS*, 184 F. Supp. 3d at 917–924 (discussing failure of the 2014 BiOp to account for the effects of the 2014 RPA with climate impacts).

Fourth, the 2020 BiOp fails to give the benefit of the doubt to the listed species by relying on unspecified and uncertain habitat mitigation actions, despite the Court’s rejection of this approach in prior BiOps. *See id.* at 906, 910 (failure to give species the benefit of the doubt).

Finally, the 2020 BiOp fails to use the best currently available scientific information in its jeopardy analysis or provide a rational explanation for its ultimate no-jeopardy conclusion. The Court has also addressed these failures in prior illegal BiOps. *See id.* at 891 (failure to use best available science).

A. The 2020 BiOp Is Built on an Illegal “Isolate-and-Compare” Jeopardy Analysis.

The 2020 BiOp reaches the first no-jeopardy finding for dam operations since the 2004 BiOp that this Court and the Ninth Circuit both firmly rejected. *See NWF v. NMFS*, 2005 WL 1278878, *aff’d*, 524 F.3d 917 (9th Cir. 2008). The no-jeopardy finding in the 2020 BiOp has very little to do with the nature of the actions it considers, which continue largely unchanged CRS operations that have failed to comply with the ESA for decades and brought salmon and steelhead populations to the brink of extinction. Instead, the 2020 BiOp’s no-jeopardy finding is the result of yet another change in approach to evaluating jeopardy. This latest change is not really new, however. Rather, it is a return to the comparative jeopardy analysis of the illegal 2004 BiOp.

This comparative framework fails for two reasons. First, the Court has already rejected it as contrary to the ESA. Second, the Corps’ operation of the CRS is discretionary, and nothing in the revised regulatory definition of the “environmental baseline” allows the Corps to assign the effects of decades of illegal actions to the baseline for its comparative jeopardy analysis.

1. *The 2020 BiOp is built on an illegal isolate-and-compare jeopardy analysis that this Court has already rejected.*

The 2020 BiOp is built on a comparison of the effects of the Proposed Action to the effects of prior dam operations, *see supra* at 7–10, but this “isolate-and-compare” analysis is no more legal today than it was when this Court first rejected it in 2005. *NWF v. NMFS*, 2005 WL 1278878. In that opinion, the Court reviewed and rejected an attempt to base a jeopardy analysis on the net difference in effects between two courses of action: the Proposed Action and a hypothetical “reference operation” that represented a version of prior dam operations. The Court squarely rejected this “isolate-and-compare” analysis:

What NOAA has in effect done in the 2004 BiOp is compare the proposed action to the share of the proposed action it chose to re-categorize as part of the environmental baseline, rather than properly evaluating the proposed action in its entirety. NOAA then proceeded with an analysis it has not used in prior biological opinions: it attempted to model the impact of that portion of the expanded baseline, and then subtracted that from its estimate of impacts attributable to the action as a whole. It intended the result to be an estimate of the incremental impact to listed species of the proposed action standing alone.

Id. at *10. As the Court correctly concluded, courts have repeatedly “rejected NOAA’s comparative approach in jeopardy analyses.” *Id.* at *10–11, 13 (citing and discussing cases that have rejected comparative jeopardy analyses).

The differences in detail between the comparative jeopardy analysis the Court rejected in the 2004 BiOp and the isolate-and-compare analysis in the 2020 BiOp do not alter the conclusion that this comparative approach violates the ESA. The Court’s rejection of a comparative jeopardy analysis did not turn on the details of the comparison; instead, the Court held that “[o]nly a comprehensive approach to jeopardy analysis will meet the [ESA’s] statutory mandate.” *Id.* at *14. Moreover, the comparative analysis in the 2020 BiOp is even more extreme than the 2004 BiOp because the 2020 BiOp compares the incremental effects of the

Proposed Action to *all* of the effects of prior unchanged and ongoing dam operations. *See supra* at 7–10.

The Corps and NOAA cannot rationally or legally resurrect an isolate-and-compare jeopardy analysis in the 2020 BiOp for the same reasons the Court rejected this analysis in the 2004 BiOp. As the Court concluded then, and as is still true today, comparing the effects of proposed dam operations to the effects of previous dam operations “conflicts with the structure, purpose, and policy behind the ESA.” *NWF v. NMFS*, 2005 WL 1278878 at *9.¹³

2. *The new regulatory definition of the “environmental baseline” does not permit the Corps to avoid consultation on dam operations.*

As explained above, the isolate-and-compare jeopardy analysis in the 2020 BiOp is neither new nor legal. What is new are some of the regulations implementing the ESA, which were revised in 2019 to include a new definition of “environmental baseline,” among other changes. *See* 50 C.F.R. § 402.02; 84 Fed. Reg. 44,976 (Aug. 27, 2019).¹⁴ The 2020 BiOp relies in part on this new definition to support its isolate-and-compare jeopardy analysis. *See* 2020 BiOp at 125; *id.* at 46. The new definition cannot render the 2020 BiOp’s comparative analysis legal for two reasons. First, nothing in this new regulation allows the Corps to avoid consultation on its discretionary operation of the CRS—and if it does, it is illegal as applied here.

¹³ While this isolate-and-compare analysis is contrary to the Court’s decisions and the ESA, it is strikingly similar to the Federal Defendants’ failed defense of the 2004 BiOp. *See, e.g., NWF v. NMFS*, No. 01-640-SI, Federal Defendants’ Opposition to Motion for Summary Judgment at 19 (Mar. 11, 2005) (ECF 616) (“NMFS makes its [jeopardy] determination by assessing the . . . the ‘net,’ effects of the proposed action. . . . If the results of this comparison were such that there would be no net reduction in the ‘reproduction, numbers, or distribution’ for a particular ESU, then NMFS would conclude the [proposed action] will not jeopardize that ESU . . .”).

¹⁴ Multiple states and other entities have challenged these new regulations as arbitrary and inconsistent with the ESA. *See* NWF’s Amended Eighth Supplemental Complaint at ¶ 52 (ECF 2311). More recently, the government has announced that it expects to revoke or revise some of the regulations it relies on in the 2020 BiOp. *See* https://www.fws.gov/endangered/improving_esa/regulation-revisions.html (visited July 7, 2021).

Second, the Corps may not rely on this new definition to insulate two decades of illegal actions from its jeopardy analysis.

The new ESA regulations categorize the “nondiscretionary” portion of ongoing agency activities as part of the “environmental baseline,” and so exclude the allegedly nondiscretionary components of ongoing actions from “effects of the action” in a jeopardy analysis. 50 C.F.R. § 402.02; 84 Fed. Reg. at 44,978, 45,016; *see also* 50 C.F.R. § 402.14(g)(4). Even though the new definition of “environmental baseline” encompasses *nondiscretionary* components of an ongoing agency action, 50 C.F.R. § 402.02, as the Services explain in the rule preamble, any *discretionary* elements of ongoing agency actions remain part of the effects of the action and so are subject to the consultation requirement:

We distinguish here between activities and facilities where the Federal agency has no discretion to modify and those discretionary activities, operations, or facilities that are part of the proposed action but for which no change is proposed. For example, a Federal agency in their proposed action may modify some of their ongoing, discretionary operations of a water project and keep other ongoing, discretionary operations the same. The resulting consultation on future operations analyzes the effects of all of the discretionary operations of the water project on the species and designated critical habitat as part of the effects of the action, *even those operations that the Federal agency proposes to keep the same.*

84 Fed. Reg. at 44,978 (emphasis added).

The 2020 BiOp includes *all* ongoing and unchanged operations of the CRS and related actions from the 2014 BiOp’s RPA in the environmental baseline, but the 2020 BiOp fails to explain why it may treat *any* aspect of these prior operations as nondiscretionary. Indeed, it is difficult to imagine what rational explanation might be offered for this position in light of the Ninth Circuit’s explicit holding that the overall operation of the CRS is discretionary. *NWF v. NMFS*, 524 F.3d at 928–29. Instead, the 2020 BiOp appears to do precisely what the new regulation says it may not do: include in the environmental baseline the decision to continue unchanged a wide array of discretionary actions. 84 Fed. Reg. at 44,978.

To the extent the new definition of “environmental baseline” permits this approach, it is unlawful as applied here. As the Ninth Circuit has held, the ESA does not permit agencies to “immunize discretionary agency actions [from consultation] simply because they are taken in pursuit of a non-discretionary goal.” *NWF v. NMFS*, 524 F.3d at 929. The Services’ attempt to exclude by definition the harm caused by ongoing and past dam operations—operations the Court has consistently rejected as illegal for the past twenty-plus years—does not reduce the harmful effects of these operations on the listed species. As applied here, this new definition is contrary to the fundamental purposes of the ESA: to prevent extinction and restore listed species to a condition that no longer requires their protection by the Act. *NWF v. NMFS*, 2005 WL 1278878 at *11 (holding that the 2004 BiOp’s effort to exclude “nondiscretionary” elements of dam operations “conflicts with the structure, purpose, and policy behind the ESA”); *see also Vierra v. Rubin*, 915 F.2d 1372, 1376 (9th Cir. 1990) (“A court may invalidate an agency regulation if it ‘is not reasonably related to the purposes of the statute it seeks to implement’”) (internal citation omitted).

The 2020 BiOp also fails to offer any rational explanation for why it can include the effects of ongoing CRS operations in the environmental baseline—and exclude them from the effects of the Proposed Action—when these operations have *never* been the subject of a valid ESA consultation. The Court has consistently rejected every version of these prior operations as illegal since the 2000 BiOp. *See NWF v. NMFS*, 184 F. Supp. 3d at 880–84 (summarizing the history of failure).¹⁵ Making this failure the baseline for the BiOp’s comparative analysis irrationally and improperly builds the no-jeopardy finding in the 2020 BiOp on a foundation of

¹⁵ The 2019 BiOp was not challenged pursuant to the terms of a negotiated short-term spill agreement that did not include agreement by any party that this BiOp complied with the ESA. *Supra* at 5 & n.2.

two decades of disregard for the ESA.

In sum, the Court has already rejected the comparative jeopardy approach that the 2020 BiOp employs. Nor can the new ESA regulations allow the 2020 BiOp to assign all of the harm from the discretionary, illegal operation of the CRS to the environmental baseline in order to insulate its harmful effects from the ESA's jeopardy prohibition.

B. The 2020 BiOp Relies on an Illegal Not-Appreciably-Worse Jeopardy Standard.

The 2020 BiOp's not-appreciably-worse jeopardy standard likewise resurrects an analysis the Court has already explicitly rejected. *NWF v. NMFS*, 524 F.3d at 930. Under this illegal standard, as long as the Proposed Action (as compared to prior operations) does not appreciably reduce the species' *current* reproduction, numbers, or distribution, it cannot cause jeopardy. *See supra* at 10–13. This standard fails to legally or rationally address whether CRS operations over the next 15 years will appreciably reduce the likelihood that the listed species will actually survive and eventually recover, as the ESA and its implementing regulations require. 50 C.F.R. § 402.02; *see also NWF v. NMFS*, 184 F. Supp. 3d at 891–93 (holding that analysis of likelihood of survival and recovery must include some analysis of a recovery end point and whether the proposed action appreciably reduces the likelihood of eventually reaching it).

The 2020 BiOp's not-appreciably-worse jeopardy standard conflicts with the ESA because it focuses only on whether the condition of the species will be appreciably worse tomorrow than it is today. The Ninth Circuit flatly rejected this approach as contrary to the ESA in affirming this Court's ruling on the 2004 BiOp:

NMFS argues that . . . it may satisfy the ESA by comparing the effects of proposed FCRPS operations on listed species to the risk posed by baseline conditions. Only if those effects are “appreciably” worse than baseline conditions must a full jeopardy analysis be made. Under this approach, a listed species could be gradually destroyed, so long as each step on the path to destruction is sufficiently modest. This type of slow slide into oblivion is one of the very ills the ESA seeks to prevent.

NWF v. NMFS, 524 F.3d at 930. Nor was that the first time courts had rejected this approach. Courts first rejected a “not-appreciably-worse” jeopardy standard in 1999, holding that “the regulatory definition of jeopardy . . . does not mean that an action agency can ‘stay the course’ just because doing so has been shown slightly less harmful to the listed species than previous operations.” *ALCOA v. BPA*, 175 F.3d 1156, 1162 n.6 (9th Cir. 1999) (quoted in *NWF v. NMFS*, 184 F. Supp. 3d at 891–92). The courts have ruled for decades that this not-appreciably-worse jeopardy standard is illegal and it has not become any more legal with the passage of time.

The 2020 BiOp’s “not-appreciably-worse” standard also is contrary to the Court’s consistent holdings that even *de minimus* improvements in survival are not *per se* adequate to avoid jeopardy:

[I]f 100 listed species are expected to survive downstream juvenile migration in 1993, and 99 survived in 1990, [this result] would mandate a no-jeopardy finding—even though a 100 survival level may still be considered so low as to constitute a continued threat to the species’ existence.

IDFG v. NMFS, 850 F. Supp. 886, 899 (D. Or. 1994) (quoted in *NWF v. NMFS*, 184 F. Supp. 3d at 892). As the Court has noted, a jeopardy standard that focuses only on a *de minimus* improvement in abundance is inconsistent with NMFS’s Consultation Handbook and its own longstanding assessment of what is necessary to avoid jeopardy to a species’ survival and eventual recovery. *NWF v. NMFS*, 184 F. Supp. 3d at 891 (quoting ESA Consultation Handbook and 1999 Memorandum on Habitat Approach).

Relying on this “not-appreciably-worse” standard, the 2020 BiOp completely fails to rationally analyze the effects of the PA on the listed species’ likelihood of eventual recovery. As this Court has already held, in order to understand whether a proposed action is likely to appreciably reduce a species’ likelihood of recovery and so jeopardize the species’ continued existence, a BiOp must articulate some description of the conditions that would constitute

eventual recovery. *See NWF v. NMFS*, 184 F. Supp. 3d at 891–93. Remarkably, the 2020 BiOp announces that such analysis is unnecessary, stating that “neither the ESA nor our implementing regulations require that a proposed action or RPA result in populations or species being on a trend toward recovery, or otherwise result in improvements that would ensure survival of a species or improve the potential for recovery.” 2019 BiOp at 26–27 (cited in 2020 BiOp at 45).¹⁶ This position is directly at odds with the Court’s prior holdings without a rational explanation. *NWF v. NMFS*, 184 F. Supp. 3d at 895 (“Without identifying ‘rough’ recovery abundance levels and time frames, NOAA Fisheries cannot logically conclude that the RPA actions will not appreciably reduce the likelihood that recovery will be attained.”) (citation omitted). *See also NWF v. NMFS*, 2005 WL 1278878 at *13 (rejecting failure of 2004 BiOp to address impacts to eventual recovery); *NWF v. NMFS*, 524 F.3d at 931–34 (same). The agencies’ misguided focus on whether the PA will reduce the species’ *current* reproduction, numbers, or distribution cannot excuse their failure to address the forward-looking survival and recovery inquiry that is required in a legally adequate jeopardy analysis.

¹⁶ The limited explanation for disregarding risk to eventual recovery in the 2020 BiOp is actually the same as the defense offered for the 2004 BiOp and rejected by the Court. *Compare* 2019 BiOp at 27 (“[a] standard requiring an improvement to species status, growth rates, or other metrics would be contrary to the plain language of section 7(a)(2)”) (cited in 2020 BiOp at 45) *with NWF v. NMFS*, No. 01-640-SI, Federal Defendants’ Opposition to Motion for Summary Judgment at 23–25 (Mar. 11, 2005) (ECF 616) (“Section 7(a)(2) . . . does not *command* that an action must *improve* a species’ chances of survival or recovery” (emphasis in original)). *Compare also* 2020 BiOp at 44–45 (“[r]ather than continue on the path of developing CRS-specific standards, in the 2019 [BiOp] we returned to our usual practice applied in most (if not all) ESA consultations.”) *with NWF v. NMFS*, No. 01-640-SI, Federal Defendants’ Opposition to Motion for Summary Judgment at 8 (Mar. 11, 2005) (ECF 616) (in contrast to the “approach [in the 2000 BiOp], which was essentially unique to the hydrosystem context [and] was a product of the consultation history and the regional interest in analysis that focused on the species’ entire life-cycle, [the 2004 BiOp’s] analytical approach [is] more faithful to the language and intent of § 7(a)(2) and the implementing regulations, and more in line with the standard approach taken in other contexts”).

As the Court has noted, the requirement that a BiOp articulate a rough recovery endpoint is necessary to evaluate whether an agency action creates a “new risk of harm” by appreciably delaying recovery. *NWF v. NMFS*, 184 F. Supp. 3d at 892. This is not the same as requiring agency actions to improve the condition of the species, and cases holding that such improvement is unnecessary are “inapposite.” *Id.* Nor does rejecting a “not-appreciably-worse” jeopardy standard confound the requirement to avoid jeopardy with the recovery planning provisions of ESA section 4. *See id.* at 895 (acknowledging that “NOAA Fisheries need not identify a full recovery plan in making its jeopardy determination” but that it must identify a rough recovery endpoint to analyze recovery).

The recent amendments to the regulations implementing the ESA do not allow the 2020 BiOp to use a not-appreciably-worse jeopardy standard. The amendments did not alter the definition of “to jeopardize the continued existence of.” 50 C.F.R. § 402.02; *see also* 84 Fed. Reg. at 45,016. And while the rule preamble cites and disagrees with the Ninth Circuit’s decision rejecting the 2004 BiOp, the preamble does not (and could not) alter the requirement that a jeopardy analysis include an assessment of the species’ likelihood of survival and recovery. *See* 83 Fed. Reg. 35,178, 35,182 (July 25, 2018) (arguing that the court “mistakenly asserted that a species may already be in a status of being ‘in jeopardy,’ ‘in peril,’ or ‘jeopardized’ by baseline conditions”); *id.* at 35,183 (arguing that the Services need not “identify a ‘tipping point’ as a necessary prerequisite for making section 7(a)(2) determinations”). Nothing in the revised regulations supports reliance on a not-appreciably-worse jeopardy standard that the Court has already rejected.

As the Ninth Circuit has noted, a not-appreciably-worse jeopardy standard conflicts with the core purpose of the ESA itself—returning listed species to a condition that no longer requires

the protection of the Act. *NWF v. NMFS*, 524 F.3d at 930 (“This type of slow slide into oblivion is one of the very ills the ESA seeks to prevent.”); *see also* 16 U.S.C. § 1531(b); *id.* § 1532(3). This standard also conflicts with the longstanding requirement that a jeopardy analysis examine risks to a species’ survival and ultimate recovery. 50 C.F.R. § 402.02. The 2020 BiOp’s attempt to resurrect an illegal not-appreciably-worse jeopardy standard must fail.

C. The 2020 BiOp Does Not Actually Account for the Effects of Climate Change.

The 2020 BiOp acknowledges that many populations of listed salmon are headed for likely extinction when the effects of the Proposed Action are evaluated in a warming world, *see supra* at 13–15, but the BiOp fails to address these dire predictions lawfully or rationally for at least two reasons. First, the BiOp fails to determine whether the PA will jeopardize listed species in the real world—a warming one. Neither the BiOp’s efforts to disclaim responsibility for the effects of the Proposed Action with climate change, nor the revised ESA regulations, allow the BiOp to dodge the crucial question of whether the Proposed Action with climate change will jeopardize listed species. Second, the BiOp’s arbitrary conclusion that the Proposed Action will “mitigate” for the effects of climate change cannot substitute for the required jeopardy finding.

1. *The 2020 BiOp fails to rationally or legally determine whether the effects of the Proposed Action with climate change will cause jeopardy.*

The 2020 BiOp predicts that the Proposed Action in combination with climate change will have a devastating effect on Snake and Columbia River salmon. For Snake River spring/summer Chinook, for example, the 2020 BiOp candidly acknowledges that many smaller populations will almost certainly be extirpated and larger ones, which are the remaining species strongholds, will face substantially reduced abundance and productivity and sharply increased risks to their persistence. 2020 BiOp at 275–76. As the BiOp concludes, “[b]ased on the

modeling, we expect abundances over the next 24 years to decrease and extinction risk to increase, even when taking into account the benefits of the proposed non-operational conservation measures and the most optimistic hypotheses.” *Id.* at 289. If these forecasts do not amount to an appreciable reduction in the likelihood that the listed species will survive and recover—in other words, jeopardy—it is not clear what would.

The BiOp avoids determining whether the Proposed Action will cause jeopardy in a warming world, however, by asserting that these consequences are a result of climate change alone, and so are not an effect of the Proposed Action. *See* 2020 BiOp at 289 (“These climate change consequences are not caused by the proposed action.”); *id.* at 279 (“These conditions are not caused by, nor will they be exacerbated by, the continued operation and maintenance of the CRS as proposed in the biological assessment.”). Yet the analysis predicting these consequences actually includes the effects of the Proposed Action as well as the effects of climate change, not just the effects of climate change. *Compare* 2020 BiOp at 242 (modeling incorporates Proposed Action and climate warming) *with id.* at 289, 291, 279 (asserting that modeling results show climate change consequences not caused by the Proposed Action). In short, the 2020 BiOp shows exactly what it includes in its analysis: the devastating effects of the Proposed Action in a warming world, *id.* at 242, not the separate and isolated effects of climate change alone. The BiOp’s efforts to disclaim responsibility for the effects of the Proposed Action in the real (warming) world are contrary to the BiOp’s own analysis. *See Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 56 (1983) (rejecting agency rationale when “every indication in the record points the other way”) (internal quotation marks omitted); *Greater Yellowstone Coal., Inc. v. Servheen*, 665 F.3d 1015, 1029–30 (9th Cir. 2011) (rejecting agency conclusion that did not follow from the facts found).

To the extent the 2020 BiOp relies on the new ESA regulations to avoid determining whether the Proposed Action with climate change will avoid jeopardy, the 2020 BiOp has failed to explain rationally how the new regulations permit this approach. *See* 2020 BiOp at 291 (concluding that the proposed action will not cause jeopardy and tracking the language of revised 50 C.F.R. § 402.14(g)(4)). The new regulations still require agencies to make a jeopardy determination after adding the effects of the action and cumulative effects to the environmental baseline, and in light of the status of the species. 50 C.F.R. § 402.14(g)(4). Indeed, the preamble to the new regulations acknowledges that “some listed species are more imperiled than others, and that for some very rare or very imperiled species, the amount of adverse effects to critical habitat or to the species itself that can occur without triggering a ‘jeopardize’ or ‘destruction or adverse modification’ determination may be small.” 84 Fed. Reg. at 44,987. In other words, the new regulations still require the 2020 BiOp to make a jeopardy determination in a real-world context by actually aggregating the effects of the action with the baseline and cumulative effects. The 2020 BiOp fails to do just that. Alternatively, to the extent the new regulations permit the 2020 BiOp to exclude the effects of climate change from its jeopardy analysis, they conflict with the ESA and are unlawful as applied here. *See NWF v. NMFS*, 524 F.3d at 930 (affirming that a biological opinion must “consider the effects of [federal] action[] ‘within the context of other existing human activities that impact the listed species.’”) (quoting *ALCOA*, 175 F.3d at 1162 n.6 and *Pac. Coast Fed’n of Fishermen’s Assoc. v. U.S. Bureau of Reclamation*, 426 F.3d 1082, 1093 (9th Cir. 2005)).

In short, nothing in the ESA or the new regulations permit the 2020 BiOp to conclude that the Proposed Action will not jeopardize listed species despite its own prediction that continued operation of the CRS together with climate change will dramatically decrease the

abundance of listed species and increase their extinction risk.

2. *The 2020 BiOp's conclusion that the proposed action will mitigate for climate change cannot substitute for a jeopardy determination.*

In a further effort to avoid recognizing the harmful effects of the Proposed Action in a warming world, the 2020 BiOp improperly substitutes for a real-world jeopardy determination the alternative, arbitrary, and illegal conclusion that the Proposed Action will “mitigate” the effects of climate change to some unstated extent. *E.g.*, BiOp at 291 (“Climate change is a substantial threat to SR spring/summer Chinook salmon The proposed action is expected to reduce both the scope and severity of those impacts and not exacerbate them.”). The ESA, however, requires federal actions to avoid jeopardy in the real-world context in which they will occur. *See NWF v. NMFS*, 524 F.3d at 930. By substituting a “mitigate-to-some-extent” finding for a jeopardy determination, the 2020 BiOp illegally seeks to duck the core issue of whether additional actions and changes to dam operations are necessary to avoid jeopardy in a warming world.

The 2020 BiOp's conclusion that the PA will mitigate for the effects of climate change is arbitrary for at least three additional reasons. First, the conclusion that the PA will “mitigate” for climate harms is based on the BiOp's illegal isolate-and-compare jeopardy analysis and its flawed treatment of the environmental baseline. Under this illegal comparative framework, the 2020 BiOp's jeopardy analysis addresses only the minor changes between the PA and prior operations without accounting for the full effects of proposed dam operations in the context in which they will actually occur. *See supra* at 7–10, 23–28. As the BiOp acknowledges, the ongoing operation of the CRS exacerbates and compounds the effects of climate change by contributing to the same changes in river conditions that harm salmon, such as seasonally increased water temperatures and changed river flows. *Compare* 2020 BiOp at 126–33 (effects

of CRS operations on water temperature and flow) *with id.* at 242 (effects of climate on water temperature and flow). The BiOp, however, illegally assigns all of the harm from ongoing CRS operations to the environmental baseline instead of the Proposed Action.

Second, the 2020 BiOp suggests that the sharp population declines it predicts for the Proposed Action with climate change are attributable almost entirely to worsening ocean conditions as opposed to freshwater conditions. 2020 BiOp at 275–76 (“The decline in the number of spawners is much greater during the marine phase of the life cycle than other life stages.”); *id.* at 291. Even if this were true, it is irrelevant. The Corps must ensure that its operation of the CRS does not appreciably reduce the likelihood that ESA-listed salmon and steelhead will be able to survive and eventually recover despite the real-world threats they face—such as worsening ocean conditions. *NWF v. NMFS*, 524 F.3d at 930 (NOAA must evaluate “‘what jeopardy might result from the agency’s proposed actions *in the present and future human and natural contexts.*’” (emphasis in original)) (quoting *Pac. Coast Fed’n*, 426 F.3d at 1093)). This means that the Corps must adjust its operation of the CRS so that listed species can survive and eventually recover despite worsening ocean conditions caused by climate change.¹⁷

Finally, the 2020 BiOp acknowledges that the only species for which it includes a quantitative analysis of the effects of the Proposed Action with climate impacts—Snake River spring/summer Chinook—is a species that is more insulated from freshwater climate impacts than other Snake and Columbia River species. 2020 BiOp at 276–77 (“The high-elevation, mostly-wilderness habitat of SR Chinook ESU partially explains the relatively small effects of

¹⁷ The 2020 BiOp concludes that worsening ocean conditions are almost entirely responsible for the population declines it predicts, but the BiOp does not explain how that conclusion is consistent with its acknowledgement that freshwater conditions, including slowed travel times and high water temperatures, also lower marine survival. 2020 BiOp at 278; *see also* Declaration of Howard A Schaller, Ph.D. at ¶¶ 27, 37–39, 57, 59–60 (filed concurrently).

climate change on their freshwater life stages.”). The 2020 BiOp does not, however, explain how it accounts for the increased risks to other species that are more vulnerable to climate impacts in their freshwater life stage. *See, e.g., id.* at 533–34 (Snake River sockeye). This failure improperly places the burden of risk from the Proposed Action on these other species that are more sensitive to climate impacts. *See NWF v. NMFS*, 184 F. Supp. 3d at 906 (holding that the 2008/2014 BiOp “places all of the risk of that uncertainty on the species. This is precisely what the ESA does not permit.”) (internal citations omitted).

D. The 2020 BiOp Arbitrarily Fails to Give the Listed Species the Benefit of the Doubt.

The 2020 BiOp arbitrarily fails to give listed species the benefit of the doubt in multiple ways. Like so many of the errors in the 2020 BiOp, this failure is not new: the Court has previously ruled that prior BiOps also failed, in part, because they did not give the “benefit of the doubt” to the listed species. *NWF v. NMFS*, 184 F. Supp. 3d at 873 (quoting *Sierra Club v. Marsh*, 816 F.2d 1376 (9th Cir. 1987), and referencing the precautionary principle); *see also id.* at 887–896 (describing failure to adequately evaluate risks to species recovery which also failed to give the “benefit of the doubt” to the species); *id.* at 901 (describing reliance on broad confidence intervals and noting that the analysis in the 2008/2014 BiOp failed to give the “benefit of the doubt” to the species). As the Court has held, the risk that a proposed action will cause jeopardy “must be borne by the project, not by the endangered species.” *Id.* at 904 (citing *Sierra Club v. Marsh*, 816 F.2d at 1386).

The 2020 BiOp disregards this precautionary principle yet again. To provide just one familiar example, as with the 2008/2014 BiOp, the 2020 BiOp relies on survival improvements from habitat actions that are not specified even for the next five years, let alone thereafter, as a factor in concluding that the Proposed Action will not jeopardize listed species. *See supra* at 15–

16 (explaining that the 2020 BiOp discusses tributary habitat mitigation actions in only the broadest terms). The BiOp also incorporates 15 years' worth of "benefits" from these unspecified and uncertain habitat actions into its quantitative modeling, 2020 BiOp at 226, 286, despite the fact that the action agencies have not identified *any* specific habitat actions beyond 2026, *see* BA at App. D. The BiOp does not even attempt to analyze or acknowledge a range of potential outcomes for these unspecified actions or evaluate whether outcomes at the low end of this range would be adequate to avoid jeopardy. As the Court has already held, such an approach unlawfully places the burden of uncertainty on the listed species, rather than the proposed action. *NWF v. NMFS*, 184 F. Supp. 3d at 904–06.¹⁸

The 2020 BiOp compounds this failure with yet another familiar error: it double-counts the same unspecified habitat, spill and other actions by relying on these measures to avoid jeopardy from dam operations *and* to mitigate for the effects of climate change. *See* 2020 BiOp at 289 ("[E]lements of the proposed action (flexible spring spill operations, tributary and estuary habitat restoration and research, monitoring, and evaluation programs) should help to improve the resiliency of SR spring/summer Chinook salmon populations to expected climate change effects."); *id.* at 279. At the same time, the BiOp fails to explain or rationally consider the ways in which climate change will reduce the effectiveness of the measures in the PA that will supposedly mitigate for the effects of climate change, such as habitat restoration. *See id.* at 217–18; *ee also id.*, App. A at 16–20 (concluding that habitat actions will mitigate for climate change but not evaluating whether climate change will reduce effectiveness of habitat actions). As this

¹⁸ In the same way, the 2020 ROD and BiOp place the burden of risk on the species because they make clear that even the modest benefits of "flexible spill" are only a required part of the Proposed Action in 2021 and may be changed thereafter, 2020 BiOp at 54–57 (referring to a process for adaptively managing spring spill), yet the analysis assumes benefits from this spill operation for the entire 15-year term of the BiOp.

Court has already held, the 2020 BiOp cannot rationally assume that the same limited actions will mitigate for the harmful effects of *both* CRS operations and climate change. *NWF v. NMFS*, 184 F. Supp. 3d at 923 (NOAA failed to properly evaluate “whether the benefits expected from the RPA actions are sufficient in light of that expected added harm and decrease in effectiveness of RPA actions” due to climate change).

To the extent the 2020 BiOp relies on the new ESA regulations to justify placing the risk on the listed species that survival improvements from habitat mitigation will not materialize, the new regulations are illegal as applied in this case. These new regulations purport to allow the 2020 BiOp to rely on an agency’s future mitigation promises “as proposed” without requiring “specific binding plans or a clear, definite commitment of resources.” 84 Fed. Reg. at 44,979–80, 45,017; *see also* 50 C.F.R. § 402.14(g)(8). This new language flatly conflicts with the fundamental purposes of the ESA to protect listed species regardless of the cost, *Tenn. Valley Auth.*, 437 U.S. at 184, and to err on the side of caution when evaluating the effects of a proposed action on a species. *NWF v. NMFS*, 184 F. Supp. 3d at 904 (“the risk that [a proposed action will cause jeopardy] ‘must be borne by the project, not by the endangered species’”) (quoting *Sierra Club v. Marsh*, 816 F.2d at 1386); *see also Vierra*, 915 F.2d at 1376 (courts may invalidate regulations that are inconsistent with the purpose of the statute they implement).

In short, the 2020 BiOp arbitrarily fails to give listed species the benefit of the doubt by placing the risk that survival improvements from unspecified habitat actions will not materialize on the species, instead of the project. The BiOp compounds this error by assuming the same unspecified actions will mitigate for both CRS operations and climate change.

E. The 2020 BiOp Fails to Use the Best Available Science and Fails to Provide a Rational Connection Between Its Analysis and Its No-Jeopardy Conclusion.

Finally, the 2020 BiOp fails to articulate a rational connection between the limited effects

it ascribes to the Proposed Action and its ultimate no-jeopardy conclusion. First, the BiOp fails to rely on the best available science or rationally explain how its quantitative analyses support its no-jeopardy conclusion. Second, the reasoning behind the BiOp's ultimate no-jeopardy conclusion is impossible to trace.

1. The 2020 BiOp fails to use the best available science or rationally explain its quantitative analyses.

The 2020 BiOp fails to rationally explain its quantitative analyses and fails to use the best available scientific information for several reasons.

First, the 2020 BiOp fails to include any rational explanation for how its limited quantitative analyses relate to its no-jeopardy conclusions. While the BiOp includes page after page of charts displaying QET risk and median abundance over 24 years, *e.g.* 2020 BiOp at 227–39 (stable climate), *id.* at 245–75 (warming climate), nowhere does the BiOp explain how it actually uses these quantitative analyses in assessing risk to species' survival and eventual recovery. For example, population biologists often use a greater than 5% risk of exceeding a QET threshold over 100 years to define an unacceptable risk to species survival. *See* Declaration of Howard A Schaller at ¶¶ 59–60 (filed concurrently) (“Schaller Dec.”). Even assuming a stable climate, the BiOp predicts that many populations will exceed this 5% risk over 24 years (a far shorter timeframe). *See, e.g.*, 2020 BiOp at 232–33 (finding 4% to 88% risk of populations in the Middle Fork Salmon River MPG exceeding the QET 50 within 24 years, assuming a stable climate). The BiOp never explains what level of risk of exceeding its QET threshold over 24 years would constitute jeopardy. Similarly, the BiOp simply reports predicted average abundances for various populations, without explaining what levels of predicted abundance would appreciably reduce a species' likelihood of survival and recovery. *See, e.g., id.* at 240. The reported QET risk and average abundances have no apparent, let alone rational, connection

to the 2020 BiOp’s no-jeopardy conclusion. The agencies’ failure to explain how they use these metrics is arbitrary. *See State Farm*, 463 U.S. at 43; *Nat’l Ass’n of Clean Water Agencies v. EPA*, 734 F.3d 1115, 1154 (D.C. Cir. 2013) (holding that EPA must “specify in greater detail *why* the equation it is using can accomplish the purpose for which EPA is using the equation” (emphasis in original)).¹⁹

Second, the 2020 BiOp simply fails to use available and credible scientific information that would support a rational assessment of the risk the Proposed Action poses to the survival and recovery of the listed species. This information includes a number of population productivity metrics, as well as the viability analyses and minimum population abundance thresholds developed by NMFS’s Interior Columbia Technical Recovery Team (“ICTRT”). *See NWF v. NMFS*, 184 F. Supp. 3d at 894–895 (noting failure to use this available scientific information). There can be no doubt that these scientific tools are available and credible—for example, the 2014 BiOp used several key population productivity metrics to evaluate the effects of the RPA it considered (albeit in connection with a trending towards recovery standard that failed to comply with the ESA). *See id.* at 887 (noting NOAA’s statement in the 2014 BiOp that recruits per spawner or R/S is the most useful performance metric). The 2020 BiOp, however, contains no analysis of predicted recruits per spawner (R/S) or any similar population productivity metric.

Similarly, the 2020 BiOp could have used ICTRT viability analyses and threshold abundance goals to explain the significance of geometric mean abundance numbers for listed

¹⁹ The 2020 BiOp also fails to include a rational explanation for its “alternative” set of COMPASS model results that incorporate a 35% productivity increase attributed to the CSS “hypothesis.” The COMPASS and CSS models are inherently different, and mixing and matching portions of each is not a rational or scientifically valid approach. *See Schaller Dec.* at ¶¶ 45–64.

species. *See id.* at 888–89. The 2020 BiOp mentions the ICTRT analyses and displays some information from them, *e.g.*, 2020 BiOp at 107–109, but does not explain whether or how it is addressed in the jeopardy analysis. *See id.* at 891 (“NOAA Fisheries does not offer a reasonable explanation for why it did not use the best available science of existing and minimum viable abundance levels [from the ICTRT] of the listed fish in considering impacts to the likelihood of achieving recovery”).

It is not the case that these metrics have somehow lost their scientific credibility. Instead, because the 2020 BiOp takes the position that the Proposed Action does not need to improve the *current* condition of the species, *see supra* at 10–13, 28–32, it arbitrarily and illegally treats these metrics as irrelevant. This illegal analytical framework cannot excuse the BiOp’s failure to rely on the best available scientific information regarding risks to a species’ survival and recovery. 16 U.S.C. § 1536(a)(2) (requiring agencies to use the best available scientific information in consultations).

2. *The 2020 BiOp fails to rationally explain its no-jeopardy conclusion.*

The 2020 BiOp fails to rationally explain its ultimate conclusion that CRS operations will not jeopardize any listed species of salmon or steelhead. As a threshold matter, the BiOp’s no-jeopardy conclusion is only possible because of the many flaws described above, including: (1) the comparison of the effects of the PA to the effects of prior operations and the inclusion of ongoing operations in the environmental baseline; (2) the view that the PA cannot cause jeopardy as long as it does not appreciably worsen the species’ current condition; (3) a determination that the effects of the PA in a warming climate do not affect its no-jeopardy finding; (4) the failure to give listed species the benefit of the doubt; and (5) the failure to use the best available science. Each of these errors renders the ultimate no-jeopardy conclusion arbitrary and provides an independent basis to hold the 2020 BiOp and 2020 ROD unlawful.

In addition, the no-jeopardy conclusions for each species in the 2020 BiOp are also arbitrary and unexplained because the reasoning leading to these conclusions is impossible to trace. For example, for Snake River spring/summer Chinook, the 2020 BiOp presents the results of its quantitative modeling, which show that the PA will *reduce* smolt-to-adult returns from 0.88 percent to 0.81 percent unless uncertain hypothesized productivity increases in fact materialize. 2020 BiOp at 241 (acknowledging that increases in productivity may not materialize but offering no explanation for whether or how this would affect the no-jeopardy finding).²⁰ The BiOp does not explain how this finding that the PA may result in generational declines of listed species is consistent with its no-jeopardy conclusion, or with the precautionary principle requiring that the burden of any uncertainty be borne by the project and not the listed species, *see Sierra Club v. Marsh*, 816 F.2d at 1386.

Similarly, the BiOp does not include any explanation for how it weighted or combined various other qualitative and quantitative factors to reach a no-jeopardy conclusion. For example, the BiOp acknowledges that aspects of the PA will harm Snake River spring/summer Chinook, such as increased reservoir elevations at a number of dams during juvenile migration seasons and allowing dam turbines to operate above the 1% peak efficiency range. 2020 BiOp at 290. The BiOp also states that the PA is “likely to improve” factors such as dam passage survival and degraded tributary and estuary habitat, relative to prior dam operations and associated actions. *Id.* The 2020 BiOp then notes that “the proposed action includes some elements that will harm salmonids and some that will benefit salmonids.” *Id.* It recognizes that

²⁰ The 2020 BiOp does not discuss what level of, or change in, smolt-to-adult returns would equate to jeopardy. Nor does it address the fact that the best available science shows that SARs below 1% indicate that a population is declining toward extinction and that the PA will leave many listed species with a high probability of continuing SARs below 1%. *See Schaller Dec.* at ¶¶ 21, 46.

the Proposed Action combined with current and future climate change poses a profound threat to the species' likelihood of survival and recovery. *Id.* at 291. The BiOp then summarily concludes that the Proposed Action will not jeopardize Snake River spring/summer Chinook. *Id.* at 290–91. This opaque conclusion that some unspecified amount of harm and some unspecified amount of benefit somehow add up to no jeopardy for Snake River spring/summer Chinook fails to satisfy the obligation to articulate a rational connection between the facts found and the ultimate no-jeopardy conclusion. *State Farm*, 463 U.S. at 43; *see also NCAP v. EPA*, 544 F.3d 1043, 1052 & n.7 (9th Cir. 2008) (rejecting vague and untraceable agency rationale). The no-jeopardy conclusions for other species are similarly opaque and arbitrary. *E.g.* 2020 BiOp at 528–34 (Snake River sockeye); *id.* at 748–55 (Upper Columbia River spring Chinook).

* * *

For the foregoing reasons, NWF is likely to succeed on the merits of its claims that the Corps violated the ESA in the 2020 ROD by relying on the 2020 BiOp.

II. THE PRELIMINARY RELIEF NWF SEEKS WILL REDUCE IRREPARABLE HARM TO ESA-LISTED SALMON AND STEELHEAD AND IS NARROWLY TAILORED

NWF seeks a preliminary injunction against the Corps for violations of the ESA, starting with the spring spill season in 2022 and extending until further order of the Court, to: (1) increase voluntary spring spill to the maximum level currently allowed under state water quality standards (with specific exceptions); (2) extend voluntary summer spill at the levels requested in Oregon's injunction motion through the end of the summer spill season (August 31st); and (3) require limited voluntary spill from the end of the summer spill season until the beginning of the following spring spill season as specified in Oregon's motion.

NWF also seeks an injunction to: (1) restore reservoir levels in the lower Snake River to their Minimum Operating Pool ("MOP") elevation with a one-foot operating range from March 1

until August 31 beginning in March 2022 and until further order of the Court; and (2) require the Corps to submit a plan to the Court by September 1, 2022 to operate the reservoirs above McNary, John Day, The Dalles and Bonneville dams at their MOP elevations with a one-foot operating range from March 1 until June 15 each year beginning in 2023.

Additional details regarding specific aspects of this relief are set forth in Oregon's motion for a preliminary injunction. NWF supports and joins in that motion.

The spill relief described above is an incremental increase in spill relative to the spill injunction the Court granted in 2017. Like that injunction, NWF's requested relief will help reduce mortality of ESA-listed salmon and steelhead. *See NWF v. NMFS*, 2017 WL 1829588 at *5–6. The reservoir elevations and operating ranges NWF seeks will also help reduce mortality of ESA-listed salmon and steelhead for the reasons described below and in the accompanying Declaration of Dr. Howard A Schaller.

A. The Proposed Action Addressed in the 2020 BiOp Will Continue to Cause Irreparable Harm to ESA-Listed Salmon and Steelhead.

There can be no doubt that continued operation of the CRS dams and reservoirs pursuant to the Corps' 2020 ROD and the 2020 BiOp will cause irreparable harm to salmon and steelhead. These operations are largely a continuation of the RPA from the illegal 2014 BiOp that the Court has already concluded would cause irreparable harm to these species. *NWF v. NMFS*, 2017 WL 1829588 at *5–6; *see also supra* at 6–13 (describing dam and reservoir operations under the 2020 BiOp and ROD). To the extent the Corps' Proposed Action is a change from that illegal RPA, it includes many measures that actually will be worse for salmon and steelhead than the 2014 RPA. These harmful changes include, but are not limited to, increased operating ranges for reservoirs above some dams on the lower Snake River and increased reservoir elevations above John Day Dam for part of the spring migration season, *see* 2020 BiOp at 58–59 & Table 1.3-3

(describing lower Snake and John Day reservoir spring operations), turbine operations outside the 1% efficiency range, *id.* at 61–63, and the early reduction or elimination of summer spill, *id.* at 57–58. Climate change will exacerbate the harm caused by the CRS and reduce the effectiveness of habitat actions and other mitigation. *See* Schaller Dec. at ¶¶ 39–44.

The modest and uncertain increase in spring spill under the flexible spill operation as now included in the Proposed Action does not in any way eliminate this irreparable harm. First, the Corps’ ROD and the 2020 BiOp make clear that this flexible spill is only part of the Proposed Action in 2021 and may be changed thereafter. 2020 BiOp at 54–57 (referring to a process for adaptively managing spring spill). Second, the interim Flexible Spill Agreement itself acknowledges the parties did not agree that the spill levels it would allow are adequate to comply with the law or avoid harm to listed species. *See* ECF 2298, 2298-1 at 1, 9 (filed Dec. 12, 2018). Third, other analyses confirm that the spill levels under the Proposed Action will lead to continued generational declines for Snake River salmon (indicating continued generational declines) far more often, and within the 2% to 6% (average of 4%) SAR range far less often, than spill at higher levels. *See* CSS 2019 Annual Report at 38–45 (Dec. 2019) (“CSS 2019 Annual Report”), *available at* <https://www.fpc.org/documents/CSS/2019CSSAnnualReport.pdf>. Indeed, one of the primary constraints on voluntary spring spill under the interim Flexible Spill Agreement was the objective—solely for the purpose of that Agreement—that any increase in spill levels under it not increase costs to the Bonneville Power Administration beyond the levels it had incurred under the Court’s 2017 spill injunction. *See* ECF 2298-1 at 1–2. This financial consideration is not a requirement of any applicable law, and is not relevant to whether the spill relief NWF seeks is necessary to reduce harm to ESA-listed salmon and steelhead. *See NWF v. NMFS*, 2017 WL 1829588 at *3, 6.

In short, as the Court has observed of operations under a prior biological opinion:

I find that the DAMS strongly contribute to the endangerment of the listed species and irreparable injury will result if changes are not made. . . . Ample evidence in the record indicates that operation of the DAMS causes a substantial level of mortality to migrating juvenile salmon and steelhead. Indeed, in the 2004 BiOp itself, NOAA noted that while ‘a non-trivial level of mortality would likely occur even under free-flowing river conditions . . . , the existence and operations of the dams and reservoirs . . . account[s] for most of the mortality of juvenile migration through the FCRPS’ 2004BiOp at 5-29 I find that irreparable harm results to listed species as a result of the action agencies’ implementation of the updated proposed action.

NWF v. NMFS, No. CV 01-640-RE, 2005 WL 1398223 at *4–5 (D. Or. June 10, 2005), *aff’d in part, remanded in part*, 422 F.3d 782, 795 (9th Cir. 2005) (“we cannot say that the district court’s factual finding concerning irreparable harm was clearly erroneous”); *see also NWF v. NMFS*, 422 F.3d 782, 795 & n.9 (9th Cir. 2005) (“FCRPS operations account for most of the mortality” to ESA-listed salmon and steelhead).

The Court reached the same conclusion in the 2017 injunction order for dam and reservoir operations under the 2014 BiOp’s RPA. *NWF v. NMFS*, 2017 WL 1829588 at *5–6 (“continuation of the status quo is likely to result in irreparable harm to the listed species”).

There is no reason to reach a different conclusion for the dam and reservoir operations under the Corps’ Proposed Action.

B. Increased Voluntary Spill Will Reduce Irreparable Harm to Salmon and Steelhead.

For juvenile salmon and steelhead migrating in the Snake and Columbia Rivers, “spill” has long been recognized as providing the safest passage over the CRS dams with the highest survival rates. *See, e.g., NWF v. NMFS*, 2017 WL 1829588 at *7–9 (discussing effects of voluntary spill); Schaller Dec. at ¶¶ 64–73 (summarizing history of and benefits to juvenile salmon and steelhead survival from voluntary spill); *see also* 2000 BiOp at 6–17 (“In general, relative to other passage routes currently available, direct juvenile survival is highest through

spillbays”); *id.* at 6 ¶ 15 (explaining that salmon suffer the “lowest direct mortality through spillways”). Releasing water over the spillways at the four lower Snake River and four lower Columbia River dams allows more salmon and steelhead to avoid traveling through the power turbines and fish bypass facilities (collectively “powerhouse passage”), passage routes that increase mortality by subjecting these fish to life-threatening impacts. *See, e.g.*, Schaller Dec. at ¶¶ 64–73; *see also* 2019 CSS Annual Report at 23 ¶ 59 (describing factors affecting juvenile survival and analyzing effects of spill operations on juvenile survival and adult return rates, including the preferred alternative in the CRSO DEIS).

Based on the strength of the evidence that increased spring spill increases life-cycle survival and reduces mortality, the Court granted an injunction in 2017 requiring voluntary spring spill up to the maximum levels allowed at that time by state water quality standards for total dissolved gas (“TDG”) and the Ninth Circuit affirmed that decision. *See NWF v. NMFS*, 2017 WL 1829588 at *5–11, *aff’d in part*, 866 F.3d 803 (9th Cir. 2018). Since 2017, both Washington and Oregon have modified their water quality standards to allow additional voluntary spill in the spring up to 125% TDG levels and, in fact, the Corps has been providing spill to this level on a limited basis under the interim Flexible Spill Agreement. ECF 2298-1 at 3–6 (filed Dec. 12, 2018) (summarizing these then-anticipated changes and spill operations under the anticipated standards).

NWF now asks the Court to require voluntary spring spill to the 125% maximum level, consistent with state water quality standards, at all eight lower Snake and lower Columbia River dams (with exceptions noted in Oregon’s motion) on a 24-hour basis throughout the spring salmon migration season beginning in April 2022 and until further order of the Court. This increase in voluntary spring spill will improve juvenile survival, reduce mortality, and likely lead

to increased adult returns. *See* Schaller Dec. at ¶¶ 74–82; *see also* CSS 2019 Annual Report at 38–45. This increased spill will benefit not only ESA-listed Snake River species but also those that originate above the confluence of the Snake and Columbia because these fish must pass the four lower Columbia River dams where the additional spill will benefit them. Because the Corps has already been providing spill to the 125% TDG gas caps on a more limited basis under the interim Flexible Spill Agreement, implementing spill to this level on a 24-hour basis beginning in 2022 should be straightforward.

NWF also asks the Court to require the Corps to provide summer spill at the levels provided in the 2020 BiOp and prior BiOps through the entire summer salmon migration season, i.e., through August 31st, rather than reducing or terminating summer spill early as the 2020 BiOp allows, *see* 2020 BiOp at 57–58. The Court has previously enjoined the Corps from this early termination of summer spill and the Ninth Circuit has affirmed that injunction. *See NWF v. NMFS*, 422 F.3d at 795–98 (affirming grant of injunction to require summer spill through August 31st); *see also NWF v. NMFS*, 839 F. Supp. 2d at 1131 (continuing summer spill injunction). As Dr. Schaller explains in his Declaration, providing summer spill through the entire summer migration season is important to preserve as much of the diversity of summer migrating juveniles as possible, limit harm to them, and increase their resilience in the future. *See* Schaller Dec. at ¶ 82.

Finally, NWF asks the Court to order the Corps to provide limited voluntary spill at each of the eight lower Snake and Columbia River dams through one or more spill bays or other spill route from September 1 through April 2 each year beginning in September, 2022. Additional details regarding this aspect of voluntary spill are set forth in Oregon’s injunction motion. This small amount of voluntary spill outside the spring and summer spill seasons will reduce the harm

to late and early migrating juveniles and afford benefits to ESA-listed adult steelhead in both the Snake and Columbia Rivers that would otherwise be harmed by the absence of this limited spill. *See* Schaller Dec. at ¶¶ 82–84 (explaining how limited spill outside the juvenile migration seasons will reduce harm to both juvenile salmon and juvenile and adult steelhead).

The above spill relief is narrowly tailored to be consistent with state water quality standards that protect salmon and other species, to allow limited flexibility to adjust spill levels at any dam to best ensure the most effective overall spill conditions, and to provide survival benefits to juvenile salmon and adult and juvenile steelhead that are not provided by the Proposed Action.

C. Lowering Reservoir Levels as NWF Seeks Will Reduce Irreparable Harm to Salmon and Steelhead and Increase Their Survival.

NWF also seeks an injunction to require the Corps to operate the reservoirs behind the dams on the lower Snake and lower Columbia Rivers at lower elevations than those allowed by the Proposed Action in the 2020 BiOp for the reasons discussed below.

As Dr. Schaller explains in his Declaration, lowering the elevation of the reservoirs behind these dams reduces the cross-section of the reservoir and increases the speed with which water moves through the reservoirs. *See* Schaller Dec. at ¶¶ 85–89. This reduced water transit time also reduces the amount of time required for juvenile salmon to pass through a reservoir and will reduce water temperatures in these reservoirs to some extent as water spends less time in each reservoir. *Id.* Extensive scientific analysis confirms that faster juvenile travel time through the reservoirs of the hydrosystem reduces the harm they suffer and increases their survival rates. *Id.* While the precise reduction in mortality, and increase in survival, that is achieved by an incremental reduction in reservoir elevation and the corresponding decrease in water transit time cannot be calculated exactly, the relationship between faster water transit time, faster fish travel

time, and reduced mortality/increased survival is well-established. *Id.* In short, each incremental reduction in reservoir elevation, and even more so the combination of incremental reductions in elevation across a series of reservoirs, will reduce the harm to ESA-listed salmon and steelhead.

The reservoir elevations NWF seeks for the spring and summer seasons beginning in March, 2022 for the four reservoirs on the lower Snake River will actually restore these reservoirs to the elevations previously implemented by the Corps under prior BiOps (e.g., minimum operating pool with a one-foot operating range), and will benefit juvenile salmon and steelhead survival, *see* Schaller Dec. at ¶¶ 92–93. The Proposed Action allows some of these reservoirs to operate with wider operating ranges that result in higher reservoir elevations for economic reasons (e.g., to facilitate barge navigation). *See* 2020 BiOp at 58–59 (Table 1.3-3 and footnotes). These economic concerns are not a relevant consideration in this motion for an injunction to protect ESA-listed species. *NWF v. NMFS*, 2017 WL 1829588 at *3, 6.

NWF also requests an injunction requiring the Corps to develop and submit, by September 1, 2022, an implementation plan to operate the reservoirs above McNary, The Dalles, John Day and Bonneville Dams at their MOP elevations, with a one-foot operating range, during the spring season beginning in spring 2023. The Proposed Action (and prior BiOps) allow operation of these reservoirs over a much larger range of higher elevations. As explained in Dr. Schaller’s Declaration, reducing the elevation of these reservoirs will decrease water transit time, decrease fish travel time, and provide incremental reductions in mortality for all ESA-listed juvenile salmon and steelhead. Schaller Dec. at ¶¶ 94–103 (discussing benefits to salmon and steelhead of these lower reservoir elevations). This increased protection includes juvenile salmon and steelhead from the Columbia River above the confluence with the Snake as they too must survive passage through the lower Columbia River reservoirs. *Id.*

NWF asks the Court to order the Corps to submit a plan for operating these reservoirs at their MOP elevations beginning in the spring of 2023 because there may be issues related to operating these reservoirs at lower elevations that the Corps will need to address as part of implementing this spring MOP operation (such as alternatives to the 2020 BiOp’s increased spring reservoir elevations at John Day to discourage tern nesting on islands in John Day pool, *see, e.g.*, 2020 BiOp at 58, 74 (describing this action); *but see id.* at 72–73 (describing other measures to discourage tern nesting at other locations)). The Court and parties should have an opportunity to review and evaluate this plan before it is implemented.

It is worth noting that allowing the elevation of John Day reservoir to fluctuate well above prior levels during a portion of the spring salmon migration can create opportunities to generate additional hydropower at times when market prices are higher (generally termed “load-following”). To the extent that there are any financial considerations involved in allowing operation of this and the other lower Columbia River reservoirs above their MOP elevations during the spring migration season, they are not relevant to NWF’s motion for an injunction. *NWF v. NMFS*, 2017 WL 1829588 at *3, 6.

D. The Court Should Grant NWF the Injunctive Relief It Seeks for the Corps’ Violation of the ESA.

The relevant question in this motion is whether the relief NWF and Oregon seek for the Corps’ violations of the ESA will likely reduce the risk of harm to the listed species and is narrowly tailored. *See supra* at 20–21 (describing the standard of review for an injunction under the ESA).

As NWF explains above, ongoing hydrosystem operations under the Proposed Action will kill and injure ESA-listed salmon and steelhead and cause continued irreparable harm. As the Court has concluded on a number of prior occasions in granting a spill injunction, carefully

tailored increased spill that complies with state water quality standards reduces this harm. *See NWF v. NMFS*, 2017 WL 1829588 at *5–11; *NWF v. NMFS*, 2005 WL 1398223 at *4–5; *see also NWF v. NMFS*, 839 F. Supp. 2d at 1131 (“After many years of resistance, NOAA Fisheries now acknowledges that spring and summer spill is necessary to avoid excessive juvenile salmon mortality.”). The same finding is warranted here.

In addition, NWF and Oregon have submitted clear evidence to show that the spill and reservoir elevations they seek will, separately and in combination, reduce the harm to, and increase the survival of, ESA-listed salmon and steelhead from the levels that would otherwise occur under the Proposed Action. The increased spring spill NWF seeks as a remedial measure is now allowed by state water quality standards and can be further adjusted by the salmon managers if necessary. The extended summer spill through August 31 simply restores a survival benefit for summer migrating juveniles that the 2020 BiOp eliminates, one the Court has previously required. The limited spill outside the spring and summer seasons NWF seeks will benefit early- and late-migrating juveniles as well as adult steelhead. The lower reservoir elevations NWF seeks will individually—and even more so cumulatively—decrease water travel time and fish travel time through the lower Snake and Columbia reservoirs, and so also reduce mortality to these species from levels that would otherwise occur under the 2020 BiOp’s Proposed Action. Based on these facts and the relevant case law, the Court should grant NWF’s and Oregon’s motions for an injunction under the ESA.

CONCLUSION

For all of the foregoing reasons, NWF respectfully requests that the Court grant it a preliminary injunction for the Corps’ violations of the ESA as requested herein.

Respectfully submitted this 16th day of July, 2021.

/s/ Todd D. True

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CERTIFICATE OF COMPLIANCE

This brief complies with Local Rule 7-2(b) and the Court's Order of July 1, 2021 (ECF 2370) granting NWF's motion to file an opening memorandum in support of its motion for a preliminary injunction of up to 55 pages in length. The memorandum filed herewith is 51 pages long excluding NWF's motion but including headings, footnotes, and quotations, but excluding the caption, table of contents, table of authorities, signature block, exhibits, and any certificates of counsel.

DATED: July 16, 2021.

/s/ Todd D. True

TODD D. TRUE

CERTIFICATE OF SERVICE

I hereby certify that the foregoing document was electronically filed with the Court's CM/ECF filing system, which will send notice of the filing upon all parties registered in the CM/ECF system for this matter.

DATED: July 16, 2021.

/s/ Todd D. True

TODD D. TRUE